

REMARKS

The present Amendment and Response is intended to be fully responsive to all points of objections and/or rejections raised by the Examiner and is believed to place the application in condition for allowance. Applicants assert that the present invention is new, non-obvious and useful. Prompt and favorable reconsideration and allowance of the pending claims are respectfully requested.

Status of the Claims

Claims 1-13 are currently pending.

Claims 1 and 5 have been voluntarily amended.

Applicants assert that the amendments are fully supported by the specification of record and add no new matter. The voluntarily nature of amendments, as being explained below in more details, shall not create any prosecution history estoppels.

Remarks to Claim Rejections

Claim Rejections - 35 U.S.C. §102

The October 2, 2008 Office Action maintained rejections of claims 1, 5-6 under 35 U.S.C. §102(b), as being anticipated by Larson (US 5,160,579).

Applicants respectfully disagree.

In order to anticipate a claim, a reference must teach each and every element of the claim. In particular, MPEP 2131 states that “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference”, citing case law of *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Applicants respectfully submit that independent claims 1 and 5 of the present invention include distinctive elements that are not taught, suggested, or even implied by prior art reference Larson. Such distinctive elements include, inter alia, forming areas of the metal foils not covered by the plating layer into lines.

The Office Action alleges that Larson teaches forming areas of the metal foil not covered by the plating layer into lines, citing FIG. 1J. Applicants respectfully disagree.

Larson specifically describes, at col. 5, line 66 – col. 6, line 2, that after stripping primary plating resist 16, the copper thereunder (i.e., areas of copper layer 14 not covered by copper layer 18) is etched away down to the substrate surface. In other words, Larson does not teach, suggest, or even imply forming the areas of copper layer 14 not covered by the alleged plating layer 18 into lines, as being specifically recited by independent claims 1 and 5, but rather removing these areas entirely.

In response to Applicants' response, the Office Action contends that "the sides of 12 and 14 are not covered by 18; therefore, they form the lines". The Office Action seems to be arguing that the side of 12 and 14 are the lines formed from the areas of the metal foils not covered by the plating layer. However, the Office Action fails short in being specific as to what are the "areas of said metal foil" (in FIG. 1) that are being formed into the alleged lines.

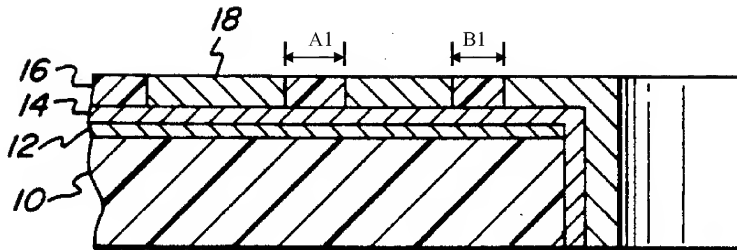


FIG. 1D

On page 2, second paragraph under item #2, the Office Action alleges that Larson teaches "forming a plating layer (18) on an inner surface of said opening and areas of said

metal foil not covered by said first resist pattern”. According to FIG. 1D of Larson (a portion of which is reproduced above), the Office Action is clearly contending that the alleged metal foil 14 is the “said metal foil”, and the alleged plating layer 18 covers areas of “said metal foil” not covered by resist pattern 16. Thus based on this argument of the Office Action, areas of “said metal foil” 14 covered by resist pattern 16, as indicated above in FIG. 1D as areas A1 and B1, are the “areas of said metal foil” not covered by said plating layer.

In view of above, Applicants submit that Larson does not teach forming the areas of A1 and B1, as indicated above, into lines 12 and 14. In other words, the alleged lines 12 and 14 are NOT formed from the areas of alleged metal foil 14 not covered by alleged plating layer 18, in contrary to what is specifically recited by independent claims 1 and 5 of the present invention. Rather than being formed into lines, the alleged “areas of said metal foil not covered by said plating layer” are etched away entirely by Larson, all the way down to the substrate surface (col. 5, line 66 – col. 6, line 2).

Applicants respectfully submit that any attempts to counter argue that the areas of copper layer 14 under resist pattern 16 in FIG. 1D are NOT the “areas of said metal foil not covered by said plating layer”, such as by alleging instead that a cross-section of copper layer 12 and 14 be the “areas of said metal foil not covered by said plating layer”, will contradict directly to the Office Action’s own argument.

In the December 5, 2008 **Advisory Action**, the Examiner continues to reject claims 1 and 5 by alleging that the sides of the lines are not covered by the plating layer (FIG. 1J of Larson) which, Applicants respectfully submit, is not even relevant to the distinctive claim elements of independent claims 1 and 5. The Examiner failed to address the deficiencies of prior art Larson, which is made clear by Applicants’ above argument, in identifying: (1) the “area of said metal foil” that are not covered by the plating layer and, (2) an action (as allegedly taught by Larson) that forms the “area of said metal foil” (yet to be identified) into lines (meaning the lines are made of the area of said metal foil), as both elements are specifically required by claims 1 and 5 of the present invention.

Nevertheless, in a good faith and in order to advance prosecution of the present application, Applicants have amended claims 1 and 5, without prejudice, to further clarify

that the lines, as recited by claims 1 and 5, are formed from areas of an up surface of the metal foil that is not covered by the plating layer, which is exactly meant by the claims before this amendment. Claims 1 and 5 now read as forming areas of the up surface of the metal foil into lines. Clearly, the above amendments are not necessitated by the Office Action and therefore shall not create any prosecution history estoppels.

In view of above, Applicants respectfully submit that prior art reference Larson does not teach, suggest, or imply each and every element of independent claims 1 and 5, as specifically required by MPEP 2131 in order to anticipate a claim. Therefore, claims 1 and 5 are not anticipated by and are patentable over Larson.

Claim 6 depends from claim 5 and includes all the distinct elements of claim 5 as well as other distinctive features and/or elements. Therefore, claim 6 is patentable at least for the reasons as discussed above with regard to claim 5.

In view of above, it is respectfully requested that rejections of claims 1 and 5-6 made under 35 U.S.C. §102(b) be withdrawn.

Claim Rejections - 35 U.S.C. §103

The October 2, 2008 Office Action maintained rejections of claims 3 and 7 under 35 U.S.C. §103(a) as being unpatentable over Larson in view of Shipley (US 4,902,610);

rejected claims 2 and 8-9 under 35 U.S.C. §103(a) as being unpatentable over Larson in view of Tamm et al. (US 5,666,722);

rejected claim 4 under 35 U.S.C. §103(a) as being unpatentable over Larson in view of Tamm et al., and further in view of Shipley;

rejected claim 10 under 35 U.S.C. §103(a) as being unpatentable over Larson in view of Shipley, and further in view of Tamm et al.;

rejected claims 11-12 under 35 U.S.C. §103(a) as being unpatentable over Larson in view of Tamm et al., and further in view of Asai et al. (US 6,828,510); and

rejected claim 13 under 35 U.S.C. §103(a) as being unpatentable over Larson in view of Shipley, further in view of Tamm et al., and further in view of Asai et al.

Applicants respectfully disagree.

Claims 2-4 depend from claim 1 and include all the distinct elements of claim 1 as well as other distinctive features and/or elements. Claims 7-13 depend from claim 5 and include all the distinct elements of claim 5 as well as other distinctive features and/or elements. Therefore, claims 2-4 and 7-13 are patentable at least for the reasons as discussed above with regard to claim 1 and/or claim 5.

In view of above, it is respectfully requested that rejections of claims 2-4 and 7-13 made under 35 U.S.C. §103(a) be withdrawn.

Conclusion

In view of the preceding remarks, Applicants respectfully submit that all pending claims are now in condition for allowance. Favorable reconsideration and allowance of the claims are respectfully requested.

No fees are believed to be due in connection with this paper. However, if there is any such fee due, please charge any such fee to deposit account No. 09-0458.

Respectfully submitted,

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